

Algebraic Concepts  
Lesson 19: Systems of Linear Equations  
Math for Standards

Name \_\_\_\_\_

Date \_\_\_\_\_

*EQ: How do you solve systems of equations?*

A system is when \_\_\_\_\_ equations are being solved for at the same time.

The lines could intersect at \_\_\_\_\_ (\_\_\_\_\_).

The lines could be parallel and \_\_\_\_\_ (\_\_\_\_\_).

The lines could end up being \_\_\_\_\_ (\_\_\_\_\_).

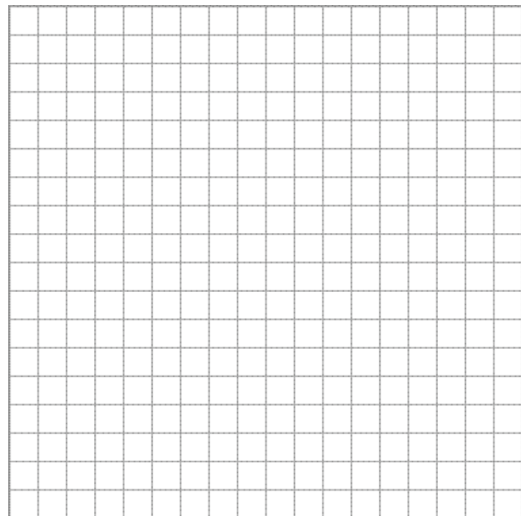
There are \_\_\_\_\_ that we will be looking at solving systems:

1. You can solve the systems by \_\_\_\_\_ (not always effective).
2. You can solve the systems by \_\_\_\_\_.
3. You can solve the systems by \_\_\_\_\_.

You should \_\_\_\_\_ check your answer!!!

Example 1: Solve the system by graphing.

$$\begin{cases} y = 3x - 2 \\ y = -x - 6 \end{cases}$$



Example 2: Solve the system by substitution.

$$\begin{cases} 2x - 3y = -2 \\ 4x + y = 24 \end{cases}$$

Example 3: Solve the system algebraically with addition and multiplication.

$$\begin{cases} 2x + y = 9 \\ 3x - y = 16 \end{cases}$$

Example 4: Solve the system algebraically with addition and multiplication.

$$\begin{cases} 2x - y = 9 \\ 3x + 4y = -14 \end{cases}$$

Example 5: Solve the system algebraically with addition and multiplication.

$$\begin{cases} 4x - 3y = 25 \\ -3x + 8y = 10 \end{cases}$$

Example 6: Solve the system by a method of your choice.

$$\begin{cases} 12x - 3y = 6 \\ 4x - y = 2 \end{cases}$$